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SUBSTITUTE SPECIFICATION

TITLE OF THE INVENTION

ASSEMBLY OF AN ELECTRICAL COMPONENT COMPRISING AN ELECTRICAL
INSULATION FILM ON A SUBSTRATE AND METHOD FOR PRODUCING SAID ASSEMBLY

CROSS REFERENCE TO RELATED APPLICATIONS

[0001] This application is based on and hereby claims priority to PCT Application No. PCT/EP2004/051979 filed on September 1, 2004 and German Application 10342295.1 filed on September 12, 2003, the contents of which are hereby incorporated by reference.

BACKGROUND OF THE INVENTION

[0002] The invention relates to an arrangement of an electrical component on a substrate, wherein at least one electrical insulating film is present for the purpose of electrically insulating the component and at least one section of the insulating film is joined to the component and the substrate in such a way that a surface contour formed by the component and the substrate is reproduced in a surface contour of said section of the insulating film. In addition, a method for producing said arrangement is specified.

[0003] An arrangement of said kind and a method for producing said arrangement are known, for example, from WO03/030247 A2. The substrate is, for example, a DCB (Direct Copper Bonding) substrate which is formed of a carrier layer made of a ceramic, to both sides of which electrically conducting layers made of copper are applied. A semiconductor component, for example, is soldered onto one of these electrically conducting copper layers in such a way that an electrical contact surface of the semiconductor component facing away from the substrate is present.

[0004] An insulating film on a polyimide or epoxy base is laminated under vacuum onto this arrangement formed of the semiconductor component and the substrate such that the insulating film covers and is tightly joined to said semiconductor component and said substrate. The insulating film is bonded to the semiconductor component and the substrate by a positive and force fit. The surface contour (topology) formed by the semiconductor component and the